Self-Assessment Test

Tailoring Supportive Care to Improve Patient Outcomes and Quality of Life: Update on Four Complications of Cancer

This program is located at **http://ashpmedia.org/symposia/support**

This self-assessment test has been provided as a study aid only. At the conclusion of the internet-based program, click on "Take CE Test" to proceed to the ASHP Learning Center and take the on-line program post-test. You may print your CE statement immediately after successful completion of the post-test.

There are a total of 20 questions associated with this self-assessment test.

1. If risk assessment and prophylactic treatment are not performed proactively in patients at risk for febrile neutropenia (FN), it may result in which of the following?
    a. Decreased length of stay, leading to decreased healthcare costs.
    b. Dose delays and reductions, which may negatively affect treatment effectiveness and survival.
    c. Normal course of treatment, as FN is not usually associated with the first cycle of chemotherapy.
    d. Chemotherapy regimen changes, which may increase treatment effectiveness and survival.

2. Filgrastim and pegfilgrastim have been shown to do which of the following?
    a. Decrease overall health care cost and FN-related hospitalizations
    b. Improve patient quality of life and improve chemotherapy cure rate
    c. Decrease FN-related hospitalizations and intravenous anti-infective use
    d. Improve chemotherapy cure rate and increase intravenous anti-infective use

3. AJ is a 62 year old obese female with a recurrence of stage III cervical cancer. AJ previously underwent surgery and received adjuvant chemotherapy with carboplatin and paclitaxel. Pertinent labs include: WBC 4.0 $x10^9$/L, segmented neutrophils 60%, bands 3% and CrCl 30 mL/min. Which of the following are risk factors for the development of FN in this patient?
    a. Age, female, and previous myelosuppressive chemotherapy
    b. Obesity, age, and impaired renal function
    c. Obesity, low baseline WBC, and impaired renal function
    d. Low baseline WBC, impaired renal function, and previous myelosuppresive chemotherapy

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4. JM is a 30 year old male with testicular cancer who is scheduled to receive four cycles of BEP (bleomycin, etoposide, cisplatin) chemotherapy. The incidence of FN associated with this regimen is > 20%. Pertinent labs include: WBC 3.6 x10^9/L, segmented neutrophils 57%, bands 4% and CrCl 65 mL/min. His past medical history is significant for asthma, diabetes mellitus, and reflux disease.

   Based on the information given, which of JM's risk factors is the most significant in determining his risk of developing FN?
   a. BEP chemotherapy
   b. Low baseline WBC
   c. Testicular cancer
   d. Diabetes mellitus

5. Which of the following statements is true regarding JM?
   a. JM should receive a prophylactic fluoroquinolone with each cycle of chemotherapy.
   b. JM should have his dose reduced to help prevent developing FN.
   c. JM should receive a prophylactic myeloid growth factor with his first cycle of chemotherapy.
   d. JM should receive both a fluoroquinolone and a myeloid growth factor as prophylaxis.

6. OM is an outpatient presenting with chemotherapy-induced FN. OM will need to begin empiric anti-infectives. Which of the following agents would be the best choice as initial monotherapy?
   a. Caspofungin
   b. Valacyclovir
   c. Vancomycin
   d. Piperacillin / Tazobactam

7. Which of the following characteristics of tumor lysis syndrome (TLS) demonstrates the need for proactive risk assessment?
   a. Typically occurs at least 72 hours after initiating chemotherapy
   b. Uric acid levels cannot be reduced once they are elevated
   c. Typically occurs with second course of chemotherapy
   d. Hyperkalemia can occur just six hours after initiating chemotherapy

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8. UB is a 5 year old male diagnosed with acute lymphocytic leukemia. On admission, his labs are WBC 53 x 10^9/L, LDH 1642 IU/L, potassium 6.7 mEq/L, BUN 38 and uric acid 10.2 mg/dL. Which of the following are risk factors for the development of TLS in UB?
    a. Acute lymphocytic leukemia, hyperkalemia, and LDH >1,500 IU/L
    b. Hyperuricemia on presentation, dehydration, and WBC > 50 x 10^9/L
    c. Age < 18 years, LDH > 1,500 IU/L, and hyperuricemia on presentation
    d. Dehydration, acute lymphocytic leukemia, and hyperkalemia

9. Which of the following rasburicase regimens would you select for prophylaxis in HR?
    a. Rasburicase 0.25 mg/kg IV x 1 dose
    b. Rasburicase 0.1 mg/kg IV x 3 days
    c. Rasburicase 6 mg IV x 1 dose
    d. Rasburicase 0.15 mg/kg IV x 7 days

10. Despite appropriate prophylactic treatment, labs taken three days post-chemotherapy suggest that HR may be experiencing TLS. Her labs are as follows: WBC 46 x 10^9/L, LDH 1,837 IU/L, potassium 5.9 mEq/L, calcium 7.4 mg/dL, phosphorus 6.6 mg/dL, and uric acid 16.8 mg/dL. Currently, HR is not experiencing any clinical signs of TLS (eg, arrhythmia). Which of the following treatments is appropriate for HR?
    a. Intravenous calcium supplementation
    b. Oral sodium polystyrene sulfonate
    c. Intermittent hemodialysis
    d. Oral sodium bicarbonate

11. Which of the following choices of hydration would you recommend for a patient with Burkitt's lymphoma receiving rasburicase for tumor lysis syndrome treatment?
    a. 0.9% sodium chloride (normal saline)
    b. 0.2% sodium chloride admixed with 2 amps (89.2 mEq) of sodium bicarbonate
    c. No hydration is required when using rasburicase
    d. Dextrose 5% in water admixed with 3 amps (133.8 mEq) of sodium bicarbonate

12. Which of the following statements is true regarding thrombosis risk in cancer patients?
    a. Approximately 5% of new venous thromboembolism events are associated with active cancer.
    b. Cancer is an independent predictor of thromboprohylaxis success.
    c. Thrombosis increases the risk of death by 2- to 8-fold.
    d. Venous thromboembolism is the fourth leading cause of death in hospitalized cancer patients.

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13. Which of the following patients has highest risk of venous thromboembolism (VTE) based on their diagnosis?
    a. A 68 year old male with stage IV pancreatic cancer
    b. A 43 year old female with stage IIa breast cancer
    c. A 36 year old female with stage I ovarian cancer
    d. A 51 year old male with stage III bladder cancer

14. JK is a 36 year old female with cervical cancer admitted for surgical staging, pelvic radiation and an initial course of chemotherapy. She has a history of deep vein thrombosis (DVT), which occurred following a flight to Japan at age 34. JK is a non-smoker and drinks socially. Which of the following is the most appropriate choice for primary VTE prophylaxis in JK?
    a. Low molecular weight heparin (LMWH)
    b. Vitamin K antagonist
    c. Venous compression devices
    d. Graduated compression stockings

15. MC, a 64 year old male with prostate cancer, presents to the outpatient oncology clinic for initial treatment of a newly diagnosed pulmonary embolus (PE). Which of the following is the best outpatient treatment option?
    a. Enoxaparin 1 mg/kg daily
    b. Enoxaparin 1 mg/kg twice daily
    c. Dalteparin 100 units/kg twice daily
    d. Dalteparin 150 units/kg daily

16. YT is a 47 year old male with a recurrence of stage III Non-Hodgkin's lymphoma. YT has a history of DM type I, HTN, and renal insufficiency (CrCl 26 mL/min). He has been admitted into the hospital for treatment of a newly diagnosed deep vein thrombosis (DVT). Which of the following would be the most appropriate anticoagulation choice for YT?
    a. Unfractionated heparin
    b. Fondaparinux
    c. Dalteparin
    d. Enoxaparin

17. Avoidance of chemotherapy –induced nausea and vomiting (CINV) during a patient's first cycle of chemotherapy decreases their risk of developing CINV with subsequent cycles.
    a. True
    b. False

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18. Which of the following patients has the lowest risk of CINV based on their chemotherapy regimen?
    a. A 57 year old female receiving carboplatin
    b. A 44 year old male receiving dacarbazine
    c. A 61 year old female receiving cisplatin
    d. A 86 year old male receiving high dose cytarabine

19. Which of the following chemotherapy regimens is matched with an appropriate antiemetic combination for the prevention of acute CINV?
    a. Dactinomycin - 5-HT3 antagonist + neurokinin (NK)-1 receptor antagonist + corticosteroid
    b. Ifosfamide - 5-HT3 antagonist + corticosteroid + benzodiazepine
    c. Cyclophosphamide + doxorubicin - 5-HT3 antagonist + corticosteroid
    d. Mitomycin C + vinblastine - 5-HT3 antagonist + neurokinin (NK)-1 receptor antagonist + corticosteroid

20. Which of the following changes in therapy would be appropriate based on the patient-specific characteristic with which it is matched?
    a. Use olanzapine - cytochrome P450 2D6 ultrametabolizer
    b. Add a histamine antagonist - motion sickness
    c. Change 5-HT3 antagonist - refractory to standard antiemetic combinations
    d. Add a cannabinoid - anticipatory nausea